

4.3 Passive Recreation

Passive recreation refers to non-consumptive uses such as wildlife observation, walking, biking, and canoeing. In the HLD restoration plan, the goal of providing passive recreational uses is to ensure the least impact on the wetland ecosystem.

Accessibility is a primary issue in the recreational plan. Concerns include:

- accessibility from the region to the HLD;
- accessibility to enter the HLD restoration area;
- accessibility for a wide range of people, including the physically disabled, in the HLD restoration area; and
- public accessibility to natural and cultural resources in the HLD.

A recreation area should provide access from several points for all types of visitors. However, a critical issue in accessibility arises from the impact of public access on the ecosystems.

Recreational impact is an important issue when planning recreational uses since any disturbance will influence the ecosystem. Some activities that will disturb and fragment wildlife habitat, such as hunting, fishing, and motor boating, should be avoided in the wetlands. Passive activities, such as studying nature, could also have negative impacts. For instance, physical trampling will damage vegetation and increase compaction of soils. Construction of ancillary facilities, such as boardwalks and viewing platforms, can also cause disturbances to the habitat. Even noise may interfere with wildlife activities in the wetlands. In addition, clusters of impacts by multiple activities occurring together should be paid attentions to. For example, fishing on its own may not be a significant impact in terms of physical effects, but in conjunction with development such as roads, campgrounds, and marinas, this activity can lead to more serious impacts on the wetlands.¹

Combining issues of accessibility and recreational impacts, a circulation system becomes a critical element in a recreation plan. Dealing with questions like — where should there be access for people, and which direction of traffic creates the minimum impacts on the ecosystem — is the main task in planning the access and trail systems.

Due to the dynamic hydroperiod of a wetland system, recreational activities should be restricted in order to accommodate the seasonal changes of the water level and the sensitive periods of flora and faunal development. As a result, recreational uses will also be managed for the purpose of minimizing impacts on the ecosystems.

4.3.1 Circulation

A circulation plan that illustrates the accessibility, including physical and visual access, and trail systems plays an important role in a recreation plan. Recreational activities are planned in the circulation system by defining where to go and how to access specific areas. The HLD is highly accessible from roads and the Illinois River. One main entrance, one secondary entrance, and two minor entries are proposed in the HLD restoration area. Trail systems incorporate the educational and recreational uses, including interpretive trails, a biking trail, and a seasonal canoe passway (Figure 4.3.1-1).

Entry Access Design

The HLD is highly accessible by interstate (I-180) and state (S-26) highways and by waterway via the Illinois River. A proposed main entrance is from the state road on the east side of the HLD. A preliminary entry design is proposed in the figure 4.3.1-2. The idea for this image comes from two sources. One is the goal of this project to improve wildlife habitat, especially for waterfowl. This idea consolidates the shape of the arch, which is derived from the figure of geese. The other stimulus is from a Chinese character: “ 入 ,” which means “to enter.” This hidden meaning intensifies the entry image in an innovative way.

Another possible entrance is near the village of Hennepin, on the north of the HLD. It is necessary to construct a bridge to provide year-round access across the existing dike (section 3.1.7) (Figure 4.3.1-3). The bridge, made of recycled compressed wood debris, should be constructed in 1:10 slope and at least 2.5 m (8 feet) wide to provide easy access for wheelchairs. Two other possible entrances to the HLD are at the rerouted juncture of

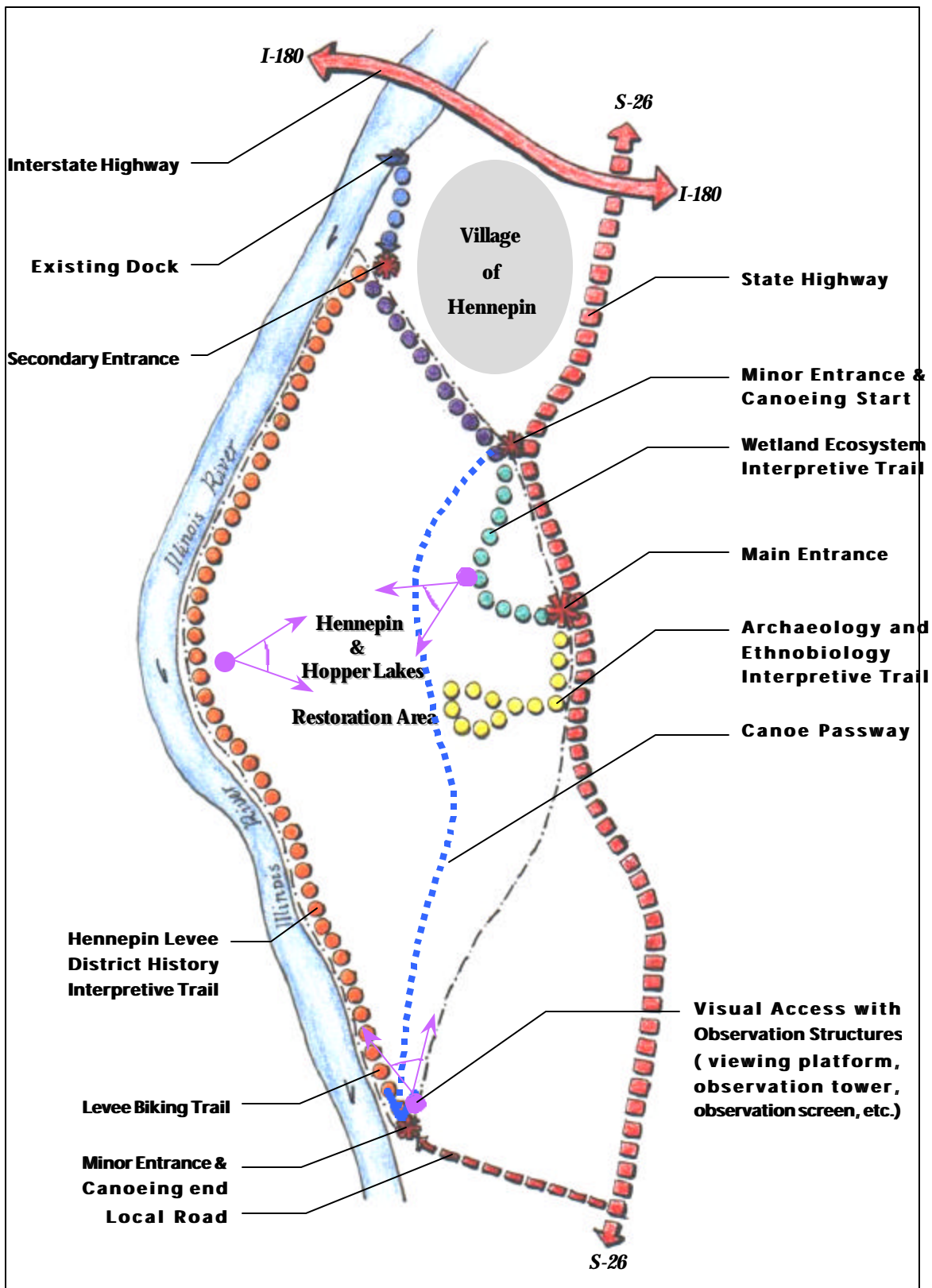


Figure 4.3.1-1 Schematic circulation plan showing accessibility and trail systems

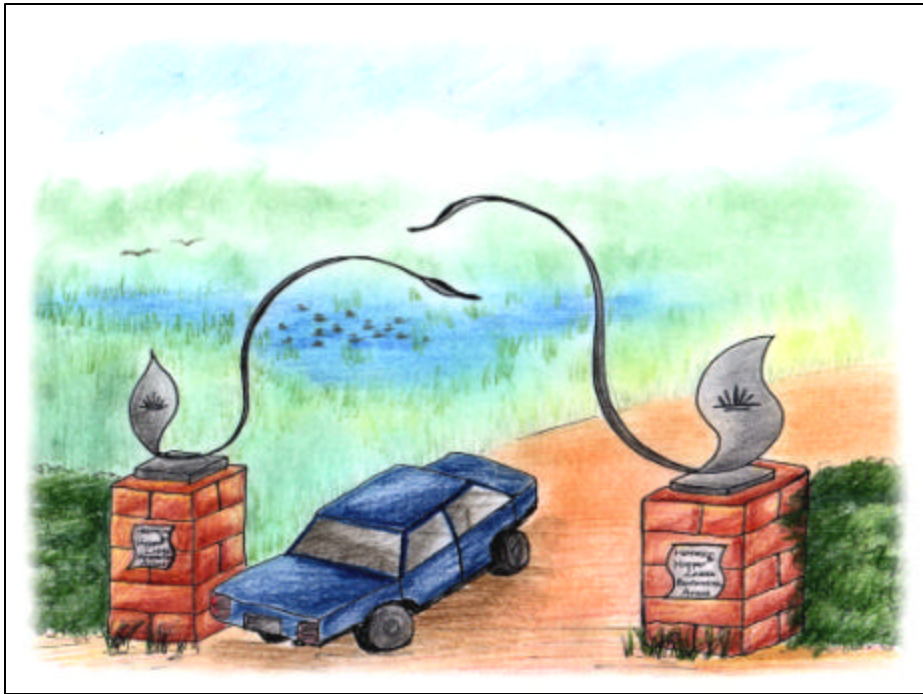


Figure 4.3.1-2 Entrance design from the state road. The arch represents: "Welcome to a resting place for ducks!"

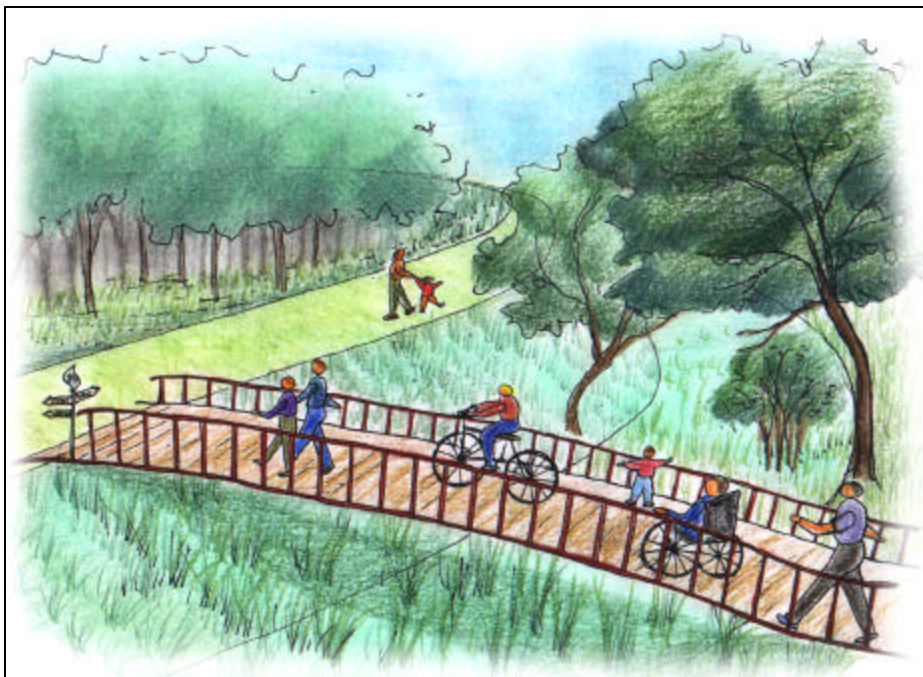


Figure 4.3.1-3 Secondary entrance design from the Village of Hennepin. A wooden bridge has easy access for a range of people.

Coffee Creek and from an access road to the south that crosses a small seasonal creek. The Coffee Creek entrance has the advantage of being adjacent to the state road, while the second entrance can provide an opportunity to make the HLD accessible from both north and south. However, there are constraints for these two minor entrances in terms of passing private property and the costs of bridging the creek.

Access to the HLD via the Illinois River has some advantages. TWI has the right to build a dock along the levee and there is an existing dock at Hennepin not far from the pathway to the HLD. Using the existing infrastructure has benefits in both lowering construction expenditures and reducing the consumption of resources.

Trail System Circulation Design

A trail system must be planned while considering accessibility and recreational impacts. To establish such a trail, one can either provide access for people to travel to a specified destination or define where people can and cannot go. For example, a trail should avoid crossing the HLD restoration area to prevent fragmentation of the habitat by a boardwalk. In some fragile habitats that are vulnerable to any disturbance, such as the Yellow Monkey Flower Preservation Area, trail construction should be avoided.

A trail system should also accommodate human needs and desires. Easy access for a range of people, including the physically disabled, should be taken into account when designing a walkway. A loop in a trail system is usually a desirable design for human experiences. This ideal design, however, may be constrained by available space and financial sources, and should remain a lower priority than minimizing impacts on the ecosystem. Trail system in the HLD includes three interpretive trails, one biking trail, and a seasonal canoe passway.

Interpretive Trails Circulation

From the main entrance, visitors can follow The Wetland Ecosystems Interpretive Trail through a variety of vegetation zones, turn north, and connect to the levee, where the Hennepin Levee District History Interpretive Trail is situated. Through the minor entrance on the northeast of the HLD, visitors can also access both the Wetland Ecosystem Interpretive Trail and the Hennepin Levee District History Trail. Another option from the

main entrance is to go to the Archeology and Ethnobiology Interpretive Trail through a short walk on the existing levee on the east edge of the HLD and a boardwalk to the interpretive island. The Archeology and Ethnobiology Interpretive Trail is designed as a loop surrounding the island and a return to the main entrance.

Levee Biking Trail Circulation

Through the existing levee, the Hennepin Levee District History Interpretive Trail connects to the secondary entrance and the minor entrance on the south end of the HLD through the Levee Biking Trail. Taking advantage of the existing levee along the Illinois River, this roughly 5-mile-long levee provides a great opportunity to create a biking trail. The Levee Biking Trail starts from the entrance of the Village of Hennepin and ends at the minor entrance at the south end of the HLD.

Canoe Passway Circulation

Canoeing is allowed in the restored floodplain, but restricted during certain seasons and along a designed passway (Figure 4.3.1-1). Canoeing starts at the minor entrance on the northeast of the HLD by taking advantage of being adjacent to the state highway (S-26) and parking area. Passing through the Wetland Ecosystem Interpretive Trail, the Archeology and Ethnobiology Interpretive Trail, and the Yellow Monkey Flower Preservation Area ends canoeing at another minor entrance in the south. Using local road and state highway, boats and supplemental equipments can be delivered back to the departure entrance, thereby completing a canoe circulation.

Circulation Loop Design

A functioning circulation system is established in the HLD through a large loop of the interpretive trails, the biking trail, the four entrances, and in conjunction to the local road and the state highway (S-26) (Figure 4.3.1-1). This hiking and biking loop provides a pleasant and convenient route for passive recreational activities without passing across east to west of the restored wetlands as a result of preventing from fragmentation of the habitat. In addition, the Yellow Monkey Flower Preservation Area is being protected from disturbance by disconnecting the trail to the Archeology and Ethnobiology Interpretive

Trail. The canoe passway has its own circulation loop and is used seasonally in order to minimize recreational impacts on the ecosystem.

Visual Access

Instead of having physical access passing through sensitive habitat and thereby disturbing floodplain wetland ecosystems, visual access provides a feasible alternative way for visitors appreciating natural heritage in the restoration area. Since existing levee is 20 feet higher than the restored wetlands and vegetation along the levee basically is non-woody plants, views from the levee to the restored floodplain wetland ecosystem serve as part of the visual access. Passive recreational activities such as wildlife observation are in conjunction with the visual access by establishing observation structures, including observation tower, observation screen, and viewing platform. There are three points of specific visual access in the restoration area, which are on the Wetland Ecosystem Interpretive Trail, Levee Biking Trail, and Yellow Monkey Flower Preservation Area, respectively (Figure 4.3.1-1).

4.3.2 Hiking and Biking

Hiking activity is a main passive recreational use planned for the Hennepin floodplain. Combining with environmental education, three interpretive trails make hiking more interesting. The hiking trails are designed for a range of people, including the elderly and the physically disabled, thereby providing easy access for most of the trails (Section 4.2).

The Levee Biking Trail, which also allows for hiking activity, offers visual access to the restored wetlands. In addition, supplemental facilities are designed to encourage passive recreational activities on the biking trail. Around the middle of the levee, a side trail takes visitors down the levee, through diverse vegetation zones, to an observation tower. Reflecting the history of the HLD and the plan to restore a resting place for waterfowl, signage on the biking trail illustrating different duck and wading bird species would make biking more interesting and add educational value (Figure 4.3.1-4).



Figure 4.3.1-4 Using the existing levee as a biking trail. Waterfowl totems make biking more interesting and educational .

4.3.3 Canoeing

Canoeing is an alternative way in visiting the Hennepin and Hopper Lakes Restoration Area. Not only can a visitor have another choice for recreational activities in the restoration area but they also can experience the ecosystem from another perspective. Along the canoe passway, people can also gain knowledge about natural and cultural heritages on the HLD by passing through interpretive areas, the Wetland Ecosystem Interpretive Trail, the Archeology and Ethnobiology Interpretive Trail, and the Yellow Monkey Flower Preservation Area. Interpretive materials will be established accordingly to different interpretive areas along the canoe passway (Figure 4.3.3-1).

Warning signs, such as interdiction to preservation area, will be arranged in order to minimize recreational impacts on the sensitive habitat. Additionally, canoeing will be restricted in certain seasons to avoid disturbing sensitive species.



Figure 4.3.3-1 Interpretive material and warning sign along the canoeing passway.

4.3.4 Wildlife Observation

The HLD recreation plan is designed to encourage wildlife observation. People can collect first-hand information through their own investigations and obtain vivid experiences when observing the wildlife.

Structures such as observation screens and towers are designed to prevent observation activities from disrupting wildlife activities. An observation screen is built on the boardwalk juxtaposed to the shallow open water and deep marsh areas in the Wetland Ecosystems Interpretive Trail. The different height of the gaps on the observation screen is intended to accommodate a wide range of people from children to adults, from the short to the tall, as well as the physically disabled (Figure 4.3.2-1).

The design of the observation towers is to provide different perspectives and angles for observing wildlife. The tower has three stories connected by a central ladder. The design is intended to simplify the structure and construction materials. The limitation in the observation tower is one-way passing up or down at one time and providing access for the disabled to the upper floors (Figure 4.3.2-2).

Lookouts and platforms provide alternative modes of wildlife observation. From the existing levee, which is 20 feet higher than the bottom of the HLD, people can easily have a wide view across the restoration area. Combined with interpretive signs, the wildlife observation areas create significant educational opportunities. The Yellow Monkey Flower Interpretive Platform is an example for combining wildlife observation and interpretation activities in the HLD restoration area (Figure 4.2.3-4).



Figure 4.3.4-1 A wildlife observation screen in the marshes on the Wetland Ecosystems Interpretive Trail.



Figure 4.3.4-2
A wildlife observation tower is designed for people to observe wildlife from a different perspective

4.3.5 Seasonal Uses

A floodplain-wetland ecosystem is a dynamic system due to flood pulses and hydroperiod variation. This will affect the recreational activities possible in a given season. For example, the boardwalk in the shallow open water areas will be closed when the water level rises in the spring and summer. Other activities that are highly dependant on water level will also be restricted by the periodic variation in water depth. For instance, archaeology excavation on the central island may be restricted when water level is higher than the research site.

In order to minimize the recreational impacts on the wetland ecosystem, some activities will also be restricted seasonally. For example, the nesting seasons for birds are the spring and summer; to prevent disturbance, canoeing may be limited to certain periods. In other cases, seasonal uses may be integrated into management plan to achieve certain management goals. For instance, fishing may be allowed in particular periods when undesirable species are prevalent in the wetlands in order to control the population of non-native species.

In conclusion, the concept of seasonal uses in the HLD provides a flexible range of recreational use to accommodate the dynamics of the wetland ecosystem as well as to prevent the flora and fauna communities from being disturbed by human activities. The seasonal uses should be integrated into the management plan in order to ensure the restoration area is sustainable.

¹ Williams, M. 1990. p289-292.